



501.35286C14

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): C. MIYAZAKI et al  
Serial No.: 10/058,319  
Filed: January 30, 2002  
For: SEMICONDUCTOR DEVICE AND MANUFACTURING  
METHOD THEREOF  
Group: 2827  
Examiner: L. THAI

**SUBMISSION (INCLUDING INFORMATION DISCLOSURE STATEMENT)**  
**UNDER 37 CFR §1.114**

**ATTN: BOX RCE**

Commissioner For Patents  
Washington, D. C. 20231

April 29, 2003

Sir:

Upon granting of the concurrently filed Request for Continued Examination (RCE), entry and formal consideration therefor of this submission, which is in the form of an Information Disclosure Statement (IDS), is respectfully requested.

In the matter of the above-identified application, applicants, through their undersigned representative, are submitting herewith copies of two (2) cited art documents in a search report of a counterpart foreign application, for the USPTOs consideration. (A copy of the English language Search Report is also enclosed herewith.) The two cited art documents are being listed herein in the

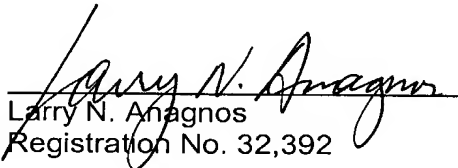
form equivalent to form PTO-1449, attached hereto.

As to the requirement of 37 CFR §1.98(a)(3) for a concise explanation of relevance to the extent that any of the listed documents are not in the English language, this is met by: Submission of an English language version of the accompanying International Search Report as supplemented by the submission of English language abstracts directed to each of the listed art documents.

Acceptance and formal entry therefor of this Submission, pursuant to 37 CFR §1.114, along with an acknowledgment of such entry as well as of a formal consideration thereof by the Examiner is respectfully requested. Moreover, a reaffirmation of the allowability of all of the pending claims, is respectfully requested.

If any costs are due in accordance with the filing of this paper, please charge same to the account of Antonelli, Terry, Stout & Kraus, LLP, Account No. 01-2135 (501.35286C14).

Respectfully submitted,  
**ANTONELLI, TERRY, STOUT & KRAUS, LLP**

  
Larry N. Anagnos  
Registration No. 32,392

LNA/dks  
(703) 312-6600



**Austrian Patent Office**  
**Service and Information Sector**  
**(TRF)**

To

**REGISTRY OF PATENTS**  
51 Bras Basah Road  
#04-01 Plaza By The Park

**SINGAPORE 0718**

Kohlmarkt 8-10  
A - 1014 VIENNA  
Austria  
Tel.No.: ++431/53424/0  
Fax.No.: ++431/53424/520

Date of mailing:

**13. Sep. 2002**

Applicant  
**HITACHI LTD. et al.**

Application No.  
**9904147-7**

Filing Date  
**20 March 1997 (20.03.1997)**

(Earliest) Priority Date  
**22 March 1996 (22.03.1996)**

International Patent Classification (IPC')

**H01L 23/498, 23/12**

Please find enclosed the

- ☒ **SEARCH REPORT**
- ☐ **EXAMINATION REPORT**
- ☐ **WRITTEN OPINION**

provided by the Austrian Patent Office as Search and Examination Authority according to the Memorandum of Understanding between the Government of Singapore and the Austrian Patent Office (MOU)

Best regards

**AUSTRIAN PATENT OFFICE**  
Service and Information  
Sector TRF

**P. NEGWER**

Telephone No.: ++431/53424/180

Enclosures:

- ☒ the search report  
(it is also accompanied by a copy of each prior art document cited in the report)
- ☐ the examination report
- ☐ the written opinion
- ☐ the Registry's copy of the priority application



## Austrian Patent Office

Application No. <b>9904147-7</b>	Applicant: <b>HITACHI LTD. et al.</b>
Filing date <b>20 March 1997 (20.03.1997)</b>	(Earliest) Priority Date <b>22 March 1996 (22.03.1996)</b>

### GENERAL OBSERVATIONS

☒ With regard to the abstract the text is approved as submitted by the applicant.

☒ The application contains neither statements disparaging any person nor expressions etc. contrary to morality or the public order.

☒ Unity of invention is lacking. There are multiple inventions in this application as follows:

a) claims 1-7 and 17-25 (semiconductor device comprising elastic film);

b) claims 8-16 (semiconductor device not comprising elastic film necessarily).

This supplementary search report is therefore restricted to the invention; covered by claims Nos. 8-16 (claims 17-25 have been considered together with claims 1-7).

AUSTRIAN PATENT OFFICE  
Kohlmarkt 8-10, A-1014 VIENNA  
Facsimile No. ++43 1/53424/535

Authorized Officer

**Kutzelnigg A.**

Telephone No. ++43 1/53424/ 0



# SEARCH REPORT

Application No.  
**9904147-7**

## A. CLASSIFICATION OF SUBJECT MATTER

According to the International Patent Classification (IPC<sup>7</sup>):

H01L 23/498, 23/12

## B. FIELDS SEARCHED IPC<sup>7</sup>:

H01L 23/498, 23/48, 23/12, 21/60

Electronic data base consulted during the search (name of data base and, where practicable, search terms used)  
WPI, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 03-057248 A (HITACHI LTD.) 12 March 1991 (12.03.91)	14-16
A	<i>abstract, figs. 1,2 and corresponding text.</i>	8,13
	---	
X	JP 08-070062 A (MATSUSHITA ELECTRIC IND. CO. LTD.)	14-16
	12 March 1996 (12.03.96)	
A	<i>abstract, figs. 1-6 and corresponding text.</i>	8,13
	----	

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the filing date but later than the priority date claimed	

Date of actual completion of the search: **24 June 2002 (24.06.2002)**

AUSTRIAN PATENT OFFICE  
Kohlmarkt 8-10, A-1014 VIENNA  
Facsimile No. ++431/53424/535

Authorized Officer Kutzelnigg A.  
Telephone No. ++431/53424/ 0



# Austrian Patent Office

Application No. 9904147-7	Applicant HITACHI LTD. et al.
Filing date 20 March 1997 (20.03.1997)	(Earliest) Priority Date 22 March 1996 (22.03.1996)

## SEARCH REPORT

### EXPLANATIONS

**JP 03-057248 A:**

Semiconductor device comprising dummy bump electrodes.

**JP 08-070062 A:**

Semiconductor device comprising dummy bump electrodes.



# SEARCH REPORT

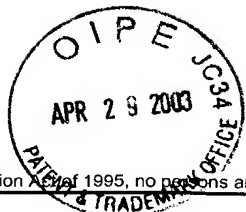
Information on patent family members

Application No.

9904147-7

This annex lists the patent family members relating to the patent documents cited in the search report.  
The members are as contained in the EPIDOS INPADOC file.  
The Office is in no way liable for these particulars which are merely given for the purpose of information

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP A2 3057248	12-03-1991	none	
JP A2 8070062	12-03-1996	JP B2 3104537	30-10-2000



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/058,319
		Filing Date	January 30, 2002
		First Named Inventor	MIYAZAKI, CHUICHI
		Art Unit	2827
		Examiner Name	L. THAI
Sheet 1 of 1	Attorney Docket Number	501.35286C14	

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				

FOREIGN PATENT DOCUMENTS						
Examiner Initials'	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		JP 03-057248 A	03-12-1991	TOMOTAKE et al	w/English Abstract	
		JP 8-070062 A	03-12-1996	HIDEYUKI et al	w/English Abstract	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.